

In re Appln. of HOSONO et al.
Application No. 09/871,976

CLAIM AMENDMENTS

1. (Currently Amended) A structure including a carbon body comprising:
a substrate; and
a single phase body of carbon body disposed on the substrate and having a plurality of continuously connected intersecting walls transverse to the substrate.

2-8 (Cancelled)

C 9. (Currently Amended) A process for producing a structure including a body of carbon body, the process including:
generating a plasma in a mixture of gases containing a gaseous carbon compound and hydrogen in a concentration range from 25% to 75%; and
applying a magnetic field and ~~electromagnetic waves~~ microwaves to the plasma to establish a resonance condition for electrons in the plasma, wherein the magnetic field and the microwaves advance in a direction parallel to the magnetic field, crossing a surface of a substrate, producing a reaction in the gaseous carbon compound and forming a ~~carbon~~ body of carbon on a ~~the~~ surface of a the substrate, the ~~carbon~~ body of carbon having a plurality of continuously connected intersecting walls transverse to the surface of the substrate.

10-12 (Cancelled)

13. (Currently Amended) The process for producing the ~~carbon~~ body of carbon according to claim 9, wherein the substrate is a glass substrate.

14. (Currently Amended) The process for producing the ~~carbon~~ body of carbon according to claim 9, wherein the substrate is heated to no more than 700°C.

15. (Currently Amended) An electric field emission electron source including:
a substrate; and
a single phase body of carbon body on the substrate as an electron emitting member for emitting electrons, the single phase body of carbon body comprising a plurality of continuously connected intersecting walls transverse to the substrate.

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16. (Previously Amended) The electric field emission electron source according to claim 15, wherein the continuously connected intersecting walls define perimeters of openings between locations where the continuously connected intersecting walls intersect.

17. (Currently Amended) The electric field emission electron source according to claim 15, including a cathode electrode for supplying electrons to the ~~carbon~~ body of carbon, and an extraction electrode for generating an electric field for inducing emission of electrons from the ~~carbon~~ body of carbon, wherein the body of carbon ~~body~~ is positioned opposite the cathode electrode, contacting the cathode electrode, and the extraction electrode is positioned opposite the body of carbon ~~body~~ without overlapping the body of carbon ~~body~~, when viewed in a direction transverse to the substrate.

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18. (Currently Amended) The electric field emission electron source according to claim 15, including a cathode electrode for supplying electrons to the body of carbon ~~body~~, and a backside extraction electrode, positioned at a rear side of the body of carbon ~~body~~, for generating, from the rear side of the body of carbon ~~body~~, an electric field for inducing emission of electrons from the body of carbon ~~body~~, wherein the cathode electrode is positioned opposite the backside extraction electrode, and the body of carbon ~~body~~ is positioned opposite the cathode electrode, contacting the cathode electrode.

19. (Currently Amended) The electric field emission electron source according to claim 18, wherein the cathode electrode is located only at a periphery of the body of carbon ~~body~~.

20. (Previously Amended) The electric field emission electron source according to claim 18, wherein the cathode electrode is positioned outside the backside extraction electrode and not overlapping with the backside extraction electrode, when viewed in a direction perpendicular to the substrate.
